



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,997	04/28/2005	Helmut J W Meyer	60469-212; OT-5043	1645

7590 09/07/2006

Karin H Butchko  
Carlson Gaskey & Olds  
Suite 350  
400 West Maple Road  
Birmingham, MI 48009

EXAMINER
----------

NICHOLSON III, LESLIE AUGUST

ART UNIT	PAPER NUMBER
----------	--------------

3651

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/532,997	<b>Applicant(s)</b> MEYER ET AL.	
	<b>Examiner</b> Leslie A. Nicholson III	<b>Art Unit</b> 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 35-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-50, 52-62, 64-70 is/are rejected.
- 7) ☒ Claim(s) 51 and 63 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Due to Applicant's amendments, all previous objections to the specification are hereby withdrawn.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 35,40,43,55-62,65-68,70 are rejected under 35 U.S.C. 102(b) as being anticipated by Kraft USP 3,682,289.

Kraft discloses a drive assembly comprising:

- A drive member (inherent, if not disclosed)
- A plurality of stepchain links (23) each having a plurality of teeth (25) made of an integrated piece of material
- Said plurality of teeth span an entire width of an interface between said stepchain links and said drive member (fig.1,3)

Art Unit: 3651

- Said teeth width are substantially constant along said entire length of said chain (fig.1,3)
- Wherein said stepchain link comprises a central body portion, and at least some of said plurality of teeth are located on said central body portion (fig.1,3)
- Wherein the plurality of teeth are made of a single piece of material (fig.1)
- Wherein each said stepchain link comprises an inner portion and a distinct outer portion (fig.1)

4. Claims 35-38,40,43,44,54-57,59-62,64-70 are rejected under 35 U.S.C. 102(e) as being anticipated by Stuffel USP 6,450,316.

Stuffel discloses a drive assembly comprising:

- A drive member (inherent, if not disclosed)
- A plurality of stepchain links (40) each having a plurality of teeth made of an integrated piece of material, and comprising an inner portion and a distinct outer portion including said plurality of teeth (fig.4)

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 41,42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuffel USP 6,450,316 (or Kraft USP 3,682,289).

Stuffel (or Kraft) does not disclose specific values for the width of said interface between said drive member and said plurality of stepchain links. However, one of ordinary skill in the art is expected to routinely experiment with the parameters, especially when the specifics are not disclosed, so as to ascertain the optimum or workable ranges for a particular use. Accordingly, it would have been obvious through routine experimentation and optimization, for one of ordinary skill in the art to have the width of said interface between said drive member and said plurality of stepchain links to be between 40 mm and 100 mm.

7. Claims 39,45-50,53,58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuffel USP 6,450,316 (or Kraft USP 3,682,289 regarding claims 39,45,46) in view of Tanigawa USP 6,213,278.

Stuffel (or Kraft) discloses all the limitations of the claim, but does not expressly disclose said die cast metal selected from the group consisting of aluminum and magnesium.

Tanigawa teaches die cast metal selected from the group consisting of aluminum and magnesium (C1/L53-54) for the purpose of choosing a material that is both strong and lightweight.

At the time of invention it would have been obvious to one having ordinary skill in the art to employ die cast metal selected from the group consisting of aluminum and magnesium, as taught by Tanigawa, in the device of Stuffel (or Kraft), for the purpose of choosing a material that is both strong and lightweight.

8. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stuffel USP 6,450,316 (or Kraft USP 3,682,289) in view of Green USP 5,520,585.

Stuffel (or Kraft) discloses all the limitations of the claim, but does not expressly disclose said plate or said teeth being that of plastic.

Green teaches the use of plastic for the purpose of using a lightweight, non-rusting, self-lubricating material (abstract).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ the use of plastic, as taught by Green, in the device of Stuffel (or Kraft), for the purpose of using a lightweight, non-rusting, self-lubricating material.

#### ***Allowable Subject Matter***

9. Claims 51,63 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

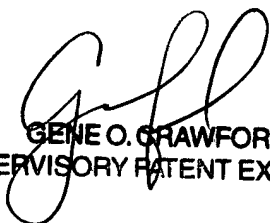
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie A. Nicholson III whose telephone number is 571-272-5487. The examiner can normally be reached on M-F, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3651

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

L.N.  
9/5/2006

  
GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER